

Service Area Plan

Department of Health

Local Communicable Disease Investigation, Treatment, and Control (44014)

Service Area Background Information

Service Area Description

The local health department's Communicable Disease Prevention, Investigation, Treatment and Control services work with partners to prevent, detect, assess, respond, treat and control communicable diseases, emerging infections and terrorism related illnesses. These activities are performed in accordance with guidance, policies and procedures of VDH's Surveillance and Investigation, Immunization, Sexually Transmitted Disease, HIV/ AIDS, Tuberculosis, and Newcomer Health programs.

Local Health Department Communicable Disease Services include:

- Disease prevention services,
- Disease surveillance to detect the occurrence of disease as quickly as possible,
- Consultation and technical assistance to health care providers, schools and institutions,
- Media relations, press releases and education material,
- Development of disease-specific emergency response plans,
- Health screenings for refugees,
- Disease record management,
- Outbreaks and individual disease investigations,
- Disease exposure notification and counseling services,
- Monitoring for and responding to emerging infections and terrorism-related illnesses,
- Clinical diagnoses and treatment of communicable diseases (including STD, HIV/ AIDS and Tuberculosis),
- Medical treatment case management, and
- Assist providers in reporting vaccine adverse events.

Service Area Alignment to Mission

These services directly align with the mission of the VDH to promote and protect the health of Virginians by preventing the spread of communicable diseases. By collaborating with community partners and coordinating services with the VDH, local health departments directly provide prevention marketing and disease intervention through appropriate use of therapeutic and regulatory strategies.

Service Area Statutory Authority

- Chapter 2 of Title 32.1 of the Code of Virginia pertains to the reporting and control of diseases.
- Articles 1 through 3.1 of that Chapter define the authority for this particular Service Area and include reporting of disease, investigation of disease, disease control measures, isolation of persons with communicable diseases, and control of rabies.
- § 32.1-36 of the Code of Virginia and 12 VAC 5-90-80 and 12 VAC 5-90-90 of the Board of Health Regulations for Disease Reporting and Control mandate reporting of specific diseases
- § 32.1-37.2 requires that partner notification services (partner counseling and referral services) be offered to individuals who test positive for HIV.
- § 32.1-39 provides for STD surveillance, investigation of reports, and conducting counseling and contact tracing (partner notification).
- § 32.1-46 provides for the immunization of children against certain diseases in accordance with regulations established by the Board of Health and the implementation of a statewide immunization registry.
- Title 23, Chapter 1, §23-7.5 requires full time students enrolling in public institutions to be immunized against certain diseases in accordance with the recommendations of the American College Health Association.
- § 32.1-57 through 32.1-60 requires STD examination, testing, and treatment.
- § 32.1-64 requires treatment for ophthalmia neonatorum.
- § 32.1-43. Authorizes the State Health Commissioner to require quarantine, isolation, immunization, decontamination, or treatment of any individual or group of individuals when he determines any such measure to be necessary to control the spread of any disease of public health importance

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Service Area Customer Base

Customer(s)	Served	Potential
Physicians	21,000	21,000
City/County Governments	119	119
College & University students	323,931	323,931
Day Care Enrollees (average monthly census)	17,300	17,300
Hospitals	94	94
Incarcerated Population	55,436	55,436
Laboratories	183	183
Licensed Veterinarians	3,500	3,500
Local Health Department Clinic patients	148,292	7,400,000
Local Health Departments	119	119
Nursing Facilities and Assisted Living Facilities	605	605
Schools (school age children)	1,204,808	1,204,808
State Legislators	140	140
Vector Control	17	17

Anticipated Changes In Service Area Customer Base

- External (economical, political, technological) pressures may decrease customer's access to care, increase cost of care, and cause a change in customer base.
- Growing numbers of foreign borne residents will create more culturally diverse populations which may impede traditional methods of health care delivery and likely present communication challenges
- Displacement due to revitalizing urban areas and land development will result in shifts in geographic location of target populations that may result in barriers to outreach and health care access.
- Access to health information via the internet will increase customer's knowledge
- Emerging infections, particularly infections from foreign countries, will change the characteristics of our traditional customer base
- Better disease surveillance techniques will increase the number of customers who will benefit from public health services

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Service Area Products and Services

- • Prevention Services
 - o Risk reduction counseling
 - o Education
 - o Health alerts
 - o Partner notification
- Surveillance:
 - Receiving reports from physicians, hospitals, and laboratories about people diagnosed with a disease of public health importance;
 - Monitoring the occurrence of disease in animals and environmental contamination that could potentially lead to illness in humans;
 - Screening at-risk populations for disease
 - Tracking trends in daily utilization of medical care by reviewing data from emergency departments, provider insurance claims, and pharmaceutical sales to detect unusual occurrences of illness;
 - Compiling statistics to identify trends and patterns of disease in populations to detect outbreaks or other disease events.
 - confirm disease report meets case definition of diagnosis
- Consultation and technical assistance
 - Work closely with health care providers to effectively manage their patients
 - Advise local and state governments regarding policies and regulations that can interrupt the spread of disease.
 - Recommend procedures and policies to hospitals and residential care facilities, including prisons and jails, to prevent the spread of communicable diseases.
 - Conduct training for care providers on disease identification, treatment and management
 - Monitor and assist day care, schools and colleges with disease prevention and outbreak response.
 - Assist employers in preventing communicable diseases from entering the workplace
 - Media relations, press releases and education material to inform the public about the diseases we track
- Diagnosis and Treatment
 - o Diagnostic and laboratory support
 - o Disease treatment
 - o Prophylaxis of exposed contacts and treatment of infected individuals
 - o Treatment case management, including Directly Observed Therapy (DOT) for TB patients
 - o Immunizations to exposed or at-risk persons
 - o Pharmaceutical services for treating communicable diseases in outbreak situations.
- Disease exposure notification services (patient counseling, interviewing, contact notification and partner referral)
- Disease-specific emergency response plans
- Enhanced surveillance methods will help identify and respond to behavioral and co-morbidity indicators of disease transmission.
- Monitoring and issuing advisories for environmental exposures, such as marine beach waters
- Informational notices to local health departments and other medical care partners about new diseases occurring that have the potential to affect the health of our citizens. (This has occurred with SARS, monkeypox, and anthrax, for example).
- Outbreak response teams
- Collaborations with community-based organizations to educate populations, identify infected persons and refer to appropriate care providers

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Factors Impacting Service Area Products and Services

- Assessments of community health needs are continuous. Services will adapt as gaps in health care are identified.
- Decrease in or consistent level funding in service areas prevent service expansion or cessation of services.
- Access to care is affected by increasing costs, transportation and limited services
- Immigration of foreign-born persons will cause adaptations to language and cultural barriers
- Enhanced diagnostic technologies identify more diseases and therefore increase demand of communicable disease services
- Enhanced data management products will permit health departments to monitor disease trends and to respond appropriately
- Ease of, and expanded global travel enhances opportunities for exposure to diseases from many foreign countries

Anticipated Changes To Service Area Products and Services

- Assessments of community health needs are continuous. Services will adapt to gaps in health care and external pressures.
- Immigration of foreign-born persons will require service areas to obtain multi-lingual capabilities
- Enhanced screening of female clinic patients for sexually transmitted diseases that contribute to infertility
- Changes in technology will affect costs and availability
- Changes in priorities as disease trends change and new threats emerge
- Legislative mandates may alter funding source priorities
- Changes in environment and human behaviors that promote disease transmission
- Advanced technology permits early access to information of potential disease spread within the Commonwealth
- Sharing resources with public health partners as required to meet threatening situations

Service Area Financial Summary

The primary sources of funding for Local Communicable Disease Prevention, Investigation, Treatment and Control are general fund appropriations for local health departments and nongeneral fund local budget matching requirements, patient and revenue. Local government cooperative budget match payments are based on a percentage of the general fund contribution provide to each local health department. Nongeneral funding also includes some federal funding and grant funding obtained by health departments from outside sources.

	<u>Fiscal Year 2007</u>		<u>Fiscal Year 2008</u>	
	General Fund	Nongeneral Fund	General Fund	Nongeneral Fund
Base Budget	\$5,838,666	\$8,815,870	\$5,838,666	\$8,815,870
Changes To Base	\$860,458	\$2,304,250	\$860,458	\$2,304,250
SERVICE AREA TOTAL	\$6,699,124	\$11,120,120	\$6,699,124	\$11,120,120

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Service Area Objectives, Measures, and Strategies

Objective 44014.01

Prevent syphilis transmission in Virginia.

Interrupting the transmission of infectious disease (disease intervention) requires rapidly identifying and notifying people exposed to a disease. Upon notification, exposed individuals can take appropriate actions to prevent infection, avoid further transmission of disease or reduce complications. The indices collected by this objective will be used by managers to monitor quality input and outcome indicators.

Infectious syphilis is an ulcerative infection that facilitates easy transmission to a sex partner(s) and permits inoculation of other diseases such as human immunodeficiency virus (HIV). Delayed or lack of treatment can cause conditions affecting the skin, bones, central nervous system and heart. In addition, women with untreated syphilis may experience complications during pregnancy.

This Objective Supports the Following Agency Goals:

- Prevent and control the transmission of communicable diseases.
(This objective is also aligned with the State's long term objective to "inspire and support Virginians towards healthy lives and strong and resilient families.")

This Objective Has The Following Measure(s):

- **Measure 44014.01.01**

Percent of early syphilis cases successfully interviewed within seven days

Measure Type: Outcome **Measure Frequency:** Annually

Measure Baseline: The percentage of early syphilis cases interviewed within 7 calendar days is 71.5% annually. These proportions are based on a three-year average (CY2002-2004).

Measure Target: At least 72% during CY07

Measure Source and Calculation:

The STD*MIS database managed by the Virginia Department of Health's Division of HIV, STD and Pharmacy Services reports monthly the number of early syphilis (ES) assigned for investigation, the number of these ES cases interviewed (Ix) and the number of the interviews performed within 7 days of assignment.

The calculation is:

- 1) # of ES cases Ix'd / # of ES cases assigned for investigation
- 2) # of ES cases Ix'd / # of ES cases Ix'd within 7 calendar days

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- **Measure 44014.01.02**

Percent of individuals exposed to early syphilis cases who are assured appropriate medical services, including testing and treatment as indicated

Measure Type: Outcome **Measure Frequency:** Annually

Measure Baseline: The annual treatment percentage of interviewed early syphilis cases is 54% (83/153). The baseline is a three year average (CY 2002-2004).

Measure Target: At least 75% during CY08

Measure Source and Calculation:

Data for this measure is entered from paper records into the STD*MIS database, which is managed by the Virginia Department of Health's Division of HIV, STD and Pharmacy Services. The database will report the number of ES cases interviewed (Ix) and a summation of the partner and cluster dispositions.

The calculation is:

$$\frac{(\# \text{ of ES contacts and clusters infected and treated} + \# \text{ of ES contacts and clusters preventatively treated})}{\# \text{ of ES cases interviewed}}$$

- **Measure 44014.01.03**

Percent of early syphilis cases appropriately treated within seven days of diagnosis.

Measure Type: Outcome **Measure Frequency:** Annually

Measure Baseline: The annual proportion of reported early syphilis cases that were treated in seven days or less is 74% (135/182). This is based on a three year average (CY 2002 – 2004).

Measure Target: At least 76% during CY07.

Measure Source and Calculation:

Data for this measure is entered from paper records into the STD*MIS database, which is managed by the Virginia Department of Health's Division of HIV, STD and Pharmacy Services. The database will report the number of ES cases appropriately treated (Rx) and the number of ES cases reported to determine the percent of cases appropriately treated in seven days or less.

The calculation is:

$$\frac{\# \text{ of ES cases Rx'd } \leq 7 \text{ days}}{\# \text{ of ES cases reported}}$$

Objective 44014.01 Has the Following Strategies:

- Local health departments will partner with medical providers to prevent the transmission of syphilis by:
 - o Accurately diagnosing and treating syphilis
 - o Rapidly reporting syphilis cases
 - o Quickly locate and interview syphilis cases
 - o Identify all exposed contacts
 - o Locate and refer all contacts for appropriate medical care as rapidly as possible.
 - o Submit timely and complete activity data to the State health department registry

Objective 44014.02

Increase the proportion of Tuberculosis (TB) patients who complete an adequate and appropriate course of treatment within 12 months of treatment initiation.

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TB is an airborne disease that is transmitted from person to person. Transmission can occur when a patient with TB disease of the lungs coughs TB bacteria into the air. A person in close contact with the patient can breathe the TB bacteria into his lungs and become infected. That person may also develop active TB, and may transmit infection to others, or may develop latent infection – i.e., TB infection without acute symptoms and cannot be transmitted. The person with latent infection may develop active (and potentially infectious TB) later in life. One of the best methods to decrease the incidence of new TB cases is to provide prompt and complete treatment of persons with active TB disease so they cannot transmit their TB to others.

This Objective Supports the Following Agency Goals:

- Prevent and control the transmission of communicable diseases.
(This objective is also aligned with the State’s long term objective to “inspire and support Virginians towards healthy lives and strong and resilient families.”)

This Objective Has The Following Measure(s):

- **Measure 44014.02.01**

Percentage of infected contacts of infectious TB that are placed on treatment for latent TB infection (LTBI) and complete that treatment regimen.

Measure Type: Outcome **Measure Frequency:** Annually

Measure Baseline: During the five-year period from 1998-2002, an average of 72.4% of the patents completed a course of treatment for LTBI.

Measure Target: At least 78% by end of FY08.

Measure Source and Calculation:

Data are collected from the contact investigation forms that are maintained at the local health department level. Contacts are identified, evaluated, and started on treatment if appropriate. Clients who start treatment are followed until treatment is completed or stopped by client or health care provider. Aggregate data are collected to determine the proportion of contacts that complete a course of treatment. The number of those starting treatment is compared to the number who complete.

Objective 44014.02 Has the Following Strategies:

- The local health departments will increase the proportion of patients who complete adequate and appropriate treatment within 12 months by:
 - o Ensuring that the correct medications are prescribed in the correct doses
 - o Ensuring the patient receives all medications as scheduled
 - o Initiating Directly Observe Therapy (DOT) practices to assure the patient ingests all doses of all medications and detect early side effects
 - o Providing appropriate patient incentives (e.g., nutritional supplements) and enablers (e.g., assistance with transportation to clinic appointments) as necessary
 - o Submitting timely and complete activity data to the State health department